

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2016-044GRR	VARIOUS	11	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 62D23		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**PROPOSED  
HIGHWAY PLANS**

**VARIOUS ROUTES (I-55, I-57, I-80 & IL 394)  
AT VARIOUS EXPRESSWAY MEDIANS**

**SECTION: 2016-044GRR**

**HIGH TENSION CABLE BARRIER REPAIR**

**VARIOUS COUNTIES**

**C-91-446-16**



SEE LOCATION MAP  
SHEET 4

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER: J. ALAIN MIDY (847) 221-3056  
PROJECT MANAGER: ISSAM RAYYAN (847) 705-4178

CONTRACT NO. 62D23

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED June 29 2016

*[Signature]*  
REGIONAL ENGINEER

Aug 12 2016  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

Aug 12 2016  
*[Signature]*  
DIRECTOR OF PROGRAM DEVELOPMENT 2

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

<u>SHEET NO.</u>	<u>DESCRIPTION</u>	<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET	635001-01	DELINEATORS
2	INDEX OF SHEETS, STANDARDS AND GENERAL NOTES	<del>635011-02</del>	<del>REFLECTOR MARKERS AND MOUNTING DETAILS</del>
3	SUMMARY OF QUANTITIES	701400-08	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
4	LOCATION MAP	701401-09	LANE CLOSURE, FREEWAY/EXPRESSWAY
5-6	HIGH TENSION GUARDRAIL DETAILS (BRIFEN USA)	701421-07	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
7	HIGH TENSION GUARDRAIL DETAILS (GIBLARTAR)	701428-01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
8	HIGH TENSION GUARDRAIL DETAILS (TRINITY)	701901-05	TRAFFIC CONTROL DEVICES
9	ENTRANCE RAMP AND CLOSURE DETAILS (TC-08)	<b>782006</b>	
10	HIGHWAY TRAFFIC CONTROL FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17)		
11	SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS (TC-18)		

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

THE CONTRACTOR SHALL CALL STATE ELECTRICAL CONTRACTOR AT (773) 287-7600 TO LOCATE STATE OWNED FACILITIES.

THE CONTRACTOR SHALL WORK IN THE DIRECTION OF TRAFFIC.

THE CONTRACTOR WILL NOT BE ALLOWED TO STORE MATERIALS OVERNIGHT IN THE MEDIAN.

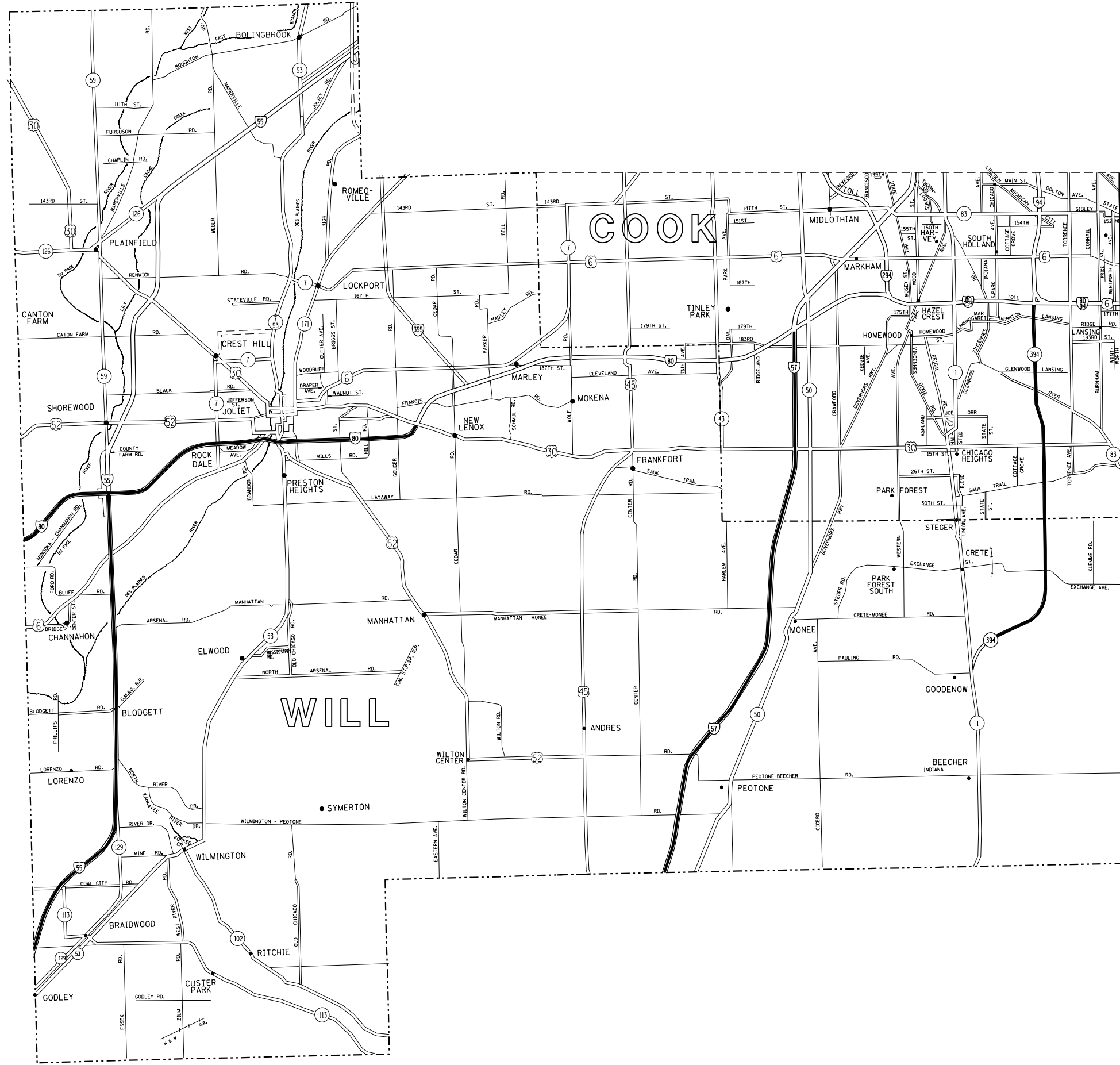
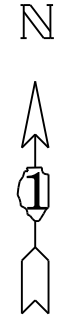
THE PROPOSED DEPTH OF THE CONCRETE SOCKETED FOUNDATIONS SHALL BE 42" (MINIMUM).

STANDARDS 701400, 701401 & 701406 SHALL BE USED FOR ALL LANE CLOSURES EXCEPT ON IL 394 SOUTH OF SAUK TRAIL, WHERE STANDARD 701421 SHALL BE USED.

REV.

FILE NAME :	USER NAME : pyzanoski@b	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CABLE BARRIER REPAIR AT VARIOUS EXPRESSWAY MEDIANS INDEX OF SHEETS, STATE STANDARDS &amp; GENERAL NOTES</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PROJECT :	PROJECT :	CHECKED -	REVISED -			VAR.	2016-044GRR	VARIOUS	11	2	
PLOT SCALE : 100.0000' / in.	DATE :	DATE -	REVISED -			CONTRACT NO. 62023					
PLOT DATE : 7/14/2016	DATE -	DATE -	REVISED -			SCALE: SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			





- LEGEND**
- STATE HIGHWAYS & EXPRESSWAYS WITH EXISTING HIGH TENSION BARRIERS.
  - STATE HIGHWAYS & EXPRESSWAYS WITHIN STATE JURISDICTION. (EXCEPT TOLLWAYS)
  - VARIOUS AGENCIES HIGHWAYS

FILE NAME =  
 USER NAME = pyznowskirb  
 DESIGNED -  
 REVISED -  
 PLOT SCALE = 100.0000' / 1" .  
 PLOT DATE = 6/15/2016

DESIGNED -  
 REVISED -  
 CHECKED -  
 DATE -

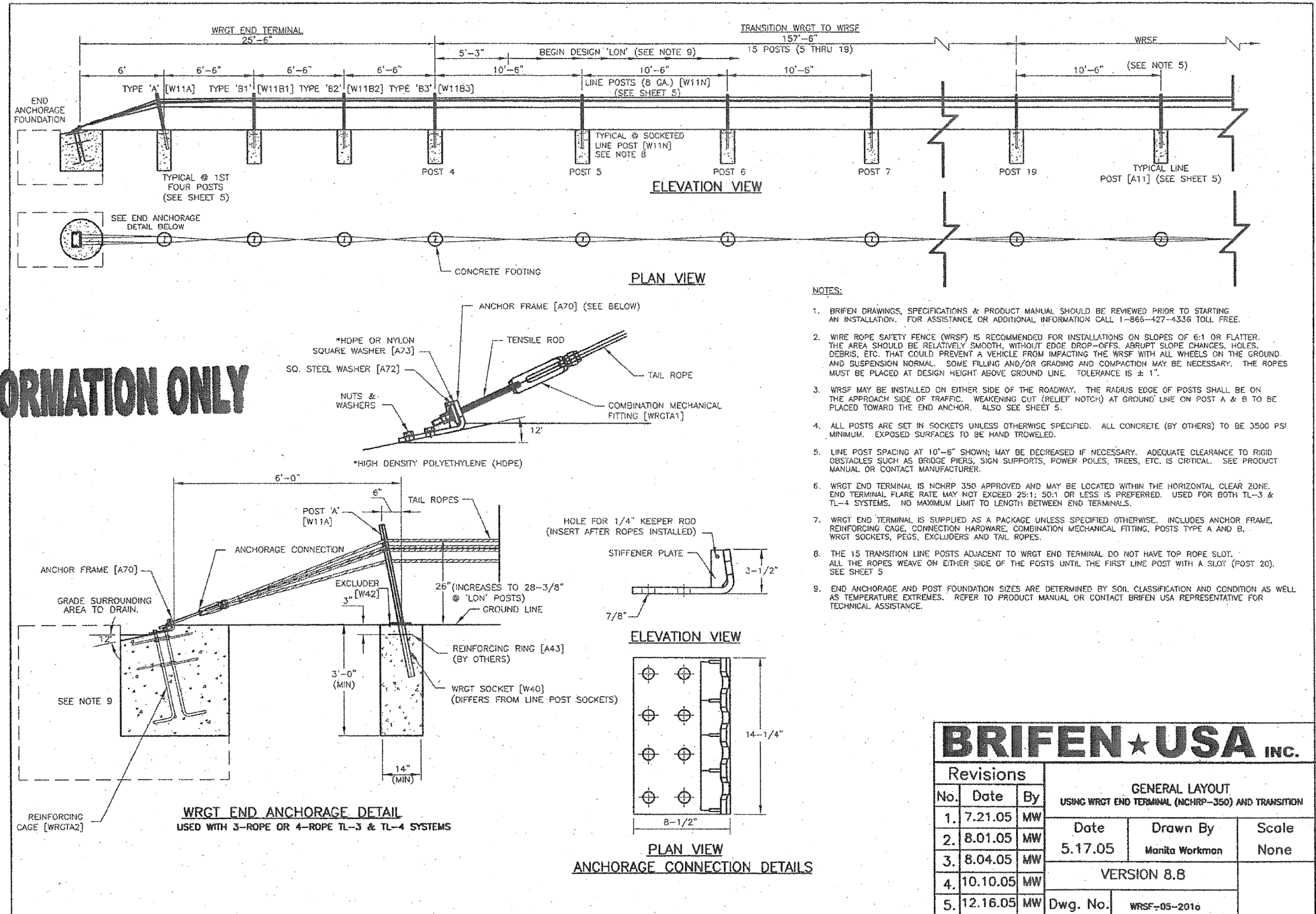
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE BARRIER REPAIR  
 AT VARIOUS EXPRESSWAY MEDIANS  
 WILL & COOK (SOUTH) COUNTIES LOCATION MAP**

SCALE: SHEET NO. 7 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2016-044GRR	VARIOUS	11	4
			CONTRACT NO. 62D23	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

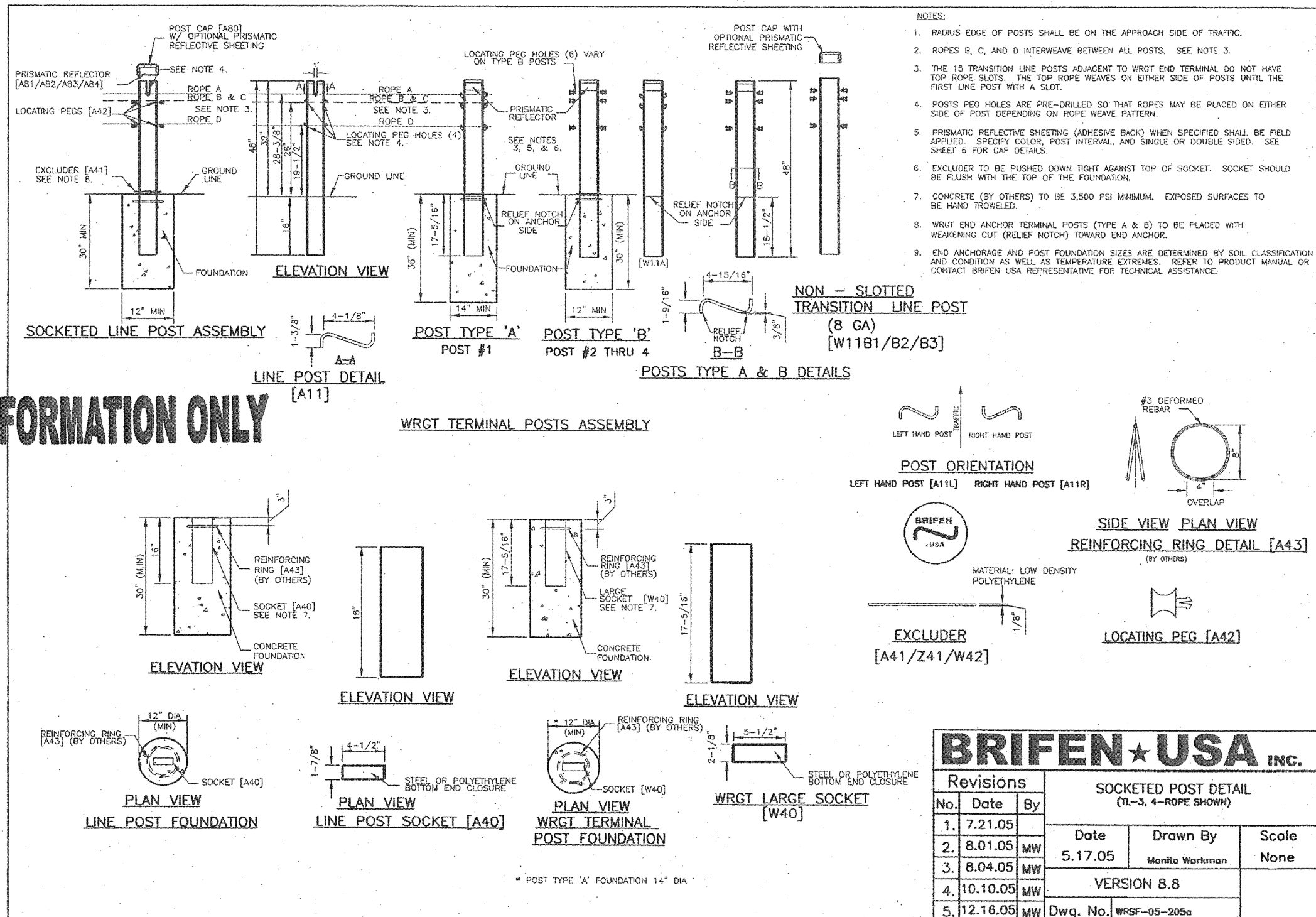
**FOR INFORMATION ONLY**



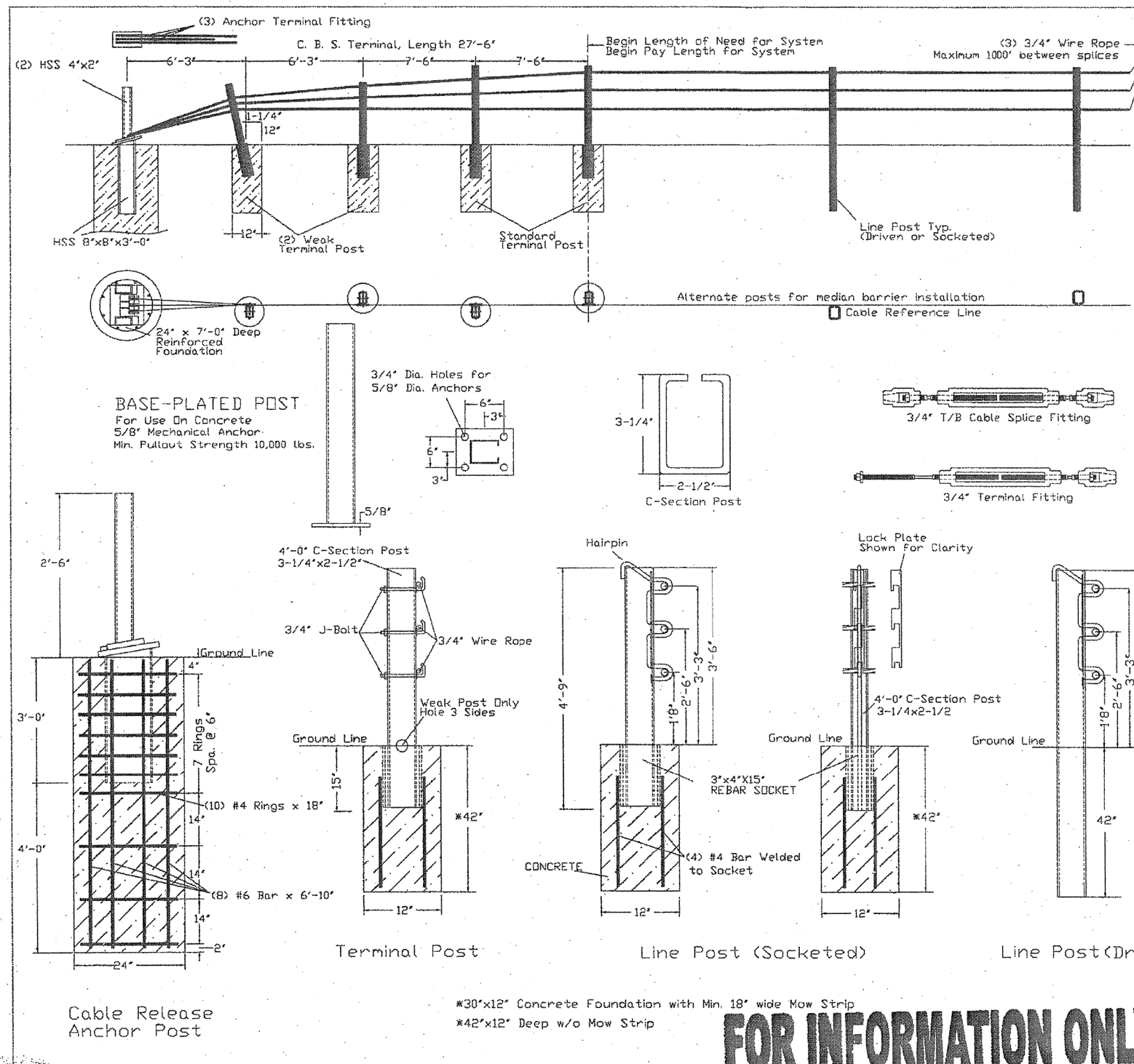
- NOTES:**
- BRIFEN DRAWINGS, SPECIFICATIONS & PRODUCT MANUAL SHOULD BE REVIEWED PRIOR TO STARTING AN INSTALLATION. FOR ASSISTANCE OR ADDITIONAL INFORMATION CALL 1-866-427-4336 TOLL FREE.
  - WIRE ROPE SAFETY FENCE (WRSF) IS RECOMMENDED FOR INSTALLATIONS ON SLOPES OF 6:1 OR FLATTER. THE AREA SHOULD BE RELATIVELY SMOOTH, WITHOUT EDGE DROP-OFFS, ABRUPT SLOPE CHANGES, HOLES, DEBRIS, ETC. THAT COULD PREVENT A VEHICLE FROM IMPACTING THE WRSF WITH ALL WHEELS ON THE GROUND AND SUSPENSION NORMAL. SOME FILLING AND/OR GRADING AND COMPACTION MAY BE NECESSARY. THE ROPES MUST BE PLACED AT DESIGN HEIGHT ABOVE GROUND LINE. TOLERANCE IS ± 1".
  - WRSF MAY BE INSTALLED ON EITHER SIDE OF THE ROADWAY. THE RADIUS EDGE OF POSTS SHALL BE ON THE APPROACH SIDE OF TRAFFIC. WEAKENING CUT (RELIEF NOTCH) AT GROUND LINE ON POST A & B TO BE PLACED TOWARD THE END ANCHOR. ALSO SEE SHEET 5.
  - ALL POSTS ARE SET IN SOCKETS UNLESS OTHERWISE SPECIFIED. ALL CONCRETE (BY OTHERS) TO BE 3500 PSI MINIMUM. EXPOSED SURFACES TO BE HAND TROWELED.
  - LINE POST SPACING AT 10'-6" SHOWN; MAY BE DECREASED IF NECESSARY. ADEQUATE CLEARANCE TO RIGID OBSTACLES SUCH AS BRIDGE PIERS, SIGN SUPPORTS, POWER POLES, TREES, ETC. IS CRITICAL. SEE PRODUCT MANUAL OR CONTACT MANUFACTURER.
  - WRGT END TERMINAL IS NCHRP 350 APPROVED AND MAY BE LOCATED WITHIN THE HORIZONTAL CLEAR ZONE. END TERMINAL FLARE RATE MAY NOT EXCEED 25:1; 50:1 OR LESS IS PREFERRED. USED FOR BOTH TL-3 & TL-4 SYSTEMS. NO MAXIMUM LIMIT TO LENGTH BETWEEN END TERMINALS.
  - WRGT END TERMINAL IS SUPPLIED AS A PACKAGE UNLESS SPECIFIED OTHERWISE. INCLUDES ANCHOR FRAME, REINFORCING CAGE, CONNECTION HARDWARE, COMBINATION MECHANICAL FITTING, POSTS TYPE A AND B, WRGT SOCKETS, PEGS, EXCLUDERS AND TAIL ROPES.
  - THE 15 TRANSITION LINE POSTS ADJACENT TO WRGT END TERMINAL DO NOT HAVE TOP ROPE SLOT. ALL THE ROPES WEAVE ON EITHER SIDE OF THE POSTS UNTIL THE FIRST LINE POST WITH A SLOT (POST 20). SEE SHEET 5.
  - END ANCHORAGE AND POST FOUNDATION SIZES ARE DETERMINED BY SOIL CLASSIFICATION AND CONDITION AS WELL AS TEMPERATURE EXTREMES. REFER TO PRODUCT MANUAL OR CONTACT BRIFEN USA REPRESENTATIVE FOR TECHNICAL ASSISTANCE.

Revisions				GENERAL LAYOUT		
No.	Date	By		USING WRGT END TERMINAL (NCHRP-350) AND TRANSITION		
1.	7.21.05	MW		Date	Drawn By	Scale
2.	8.01.05	MW		5.17.05	Manita Workman	None
3.	8.04.05	MW		VERSION 8.8		
4.	10.10.05	MW				
5.	12.16.05	MW		Dwg. No.	WRSF-05-201a	

**FOR INFORMATION ONLY**



Revisions			SOCKETED POST DETAIL (1L-3, 4-ROPE SHOWN)		
No.	Date	By	Date	Drawn By	Scale
1.	7.21.05		5.17.05	Monita Workman	None
2.	8.01.05	MW			
3.	8.04.05	MW			
4.	10.10.05	MW			
5.	12.16.05	MW			
			VERSION 8.8		
			Dwg. No.	WRSF-05-205a	



REV: 6      DATE: 09/13/07      APPROVER: RV

**GENERAL NOTES**

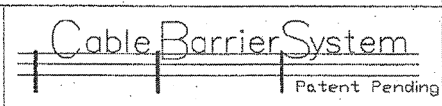
1. For additional information contact Gibraltar, Inc. at 1-800-495-8957, or see the manufacturer's product manual.
2. All concrete shall be minimum 2500 PSI.
3. Alternate Post for bi-directional traffic flow. IF installed for traffic in one direction install cables on traffic side of posts.
4. The Cable Barrier System shall be installed on shoulders or on medians with slopes of 6:1 or flatter. If installed on slopes steeper than 6:1 up to 4:1 the TL-4 system performs as a TL-3 and Gibraltar must be contacted for various guidelines related to placement.
5. The Cable Barrier System is accepted by the FHWA Test Level - 4
6. See the MUTCD for proper "Barrier" delineation
7. Rock Clause: Where solid rock is encountered:
  - a.) For socketed post, continue digging 12" diameter, 15' deep into rock or the required plan depth, whichever comes first.
  - b.) For driven post, core drill a 4" diameter hole 18" deep into rock or the required plan depth, whichever comes first.
  - c.) For Anchor post, continue digging 24" diameter, 30' deep into rock or the required plan depth, whichever comes first.
8. The Gibraltar cable barrier system shall be installed in NCHRP Report 350 standard compacted soil. Soil must be well drained.
9. Every component to be galvanized.

Cable Tension	
-10F	8000
0	7600
10	7200
20	6800
30	6400
40	6000
50	5600
60	5200
70	4800
80	4400
90	4000
100	3600
110	3200

Allowable Deviation from Chart +/- 10%

Deflection	Post Spacing
9'3"	30.FT
9'	28.FT
8'	20.FT
7'	12.FT
6'8"	10.FT

**GIBALTAR**  
320 Southland Road  
Burnet, Texas 78611  
1-800-495-8957



SYSTEM: TL-4      SCALE: NTS      DRAFTERS: EJ&TJ      DATE: 09/13/07

**FOR INFORMATION ONLY**

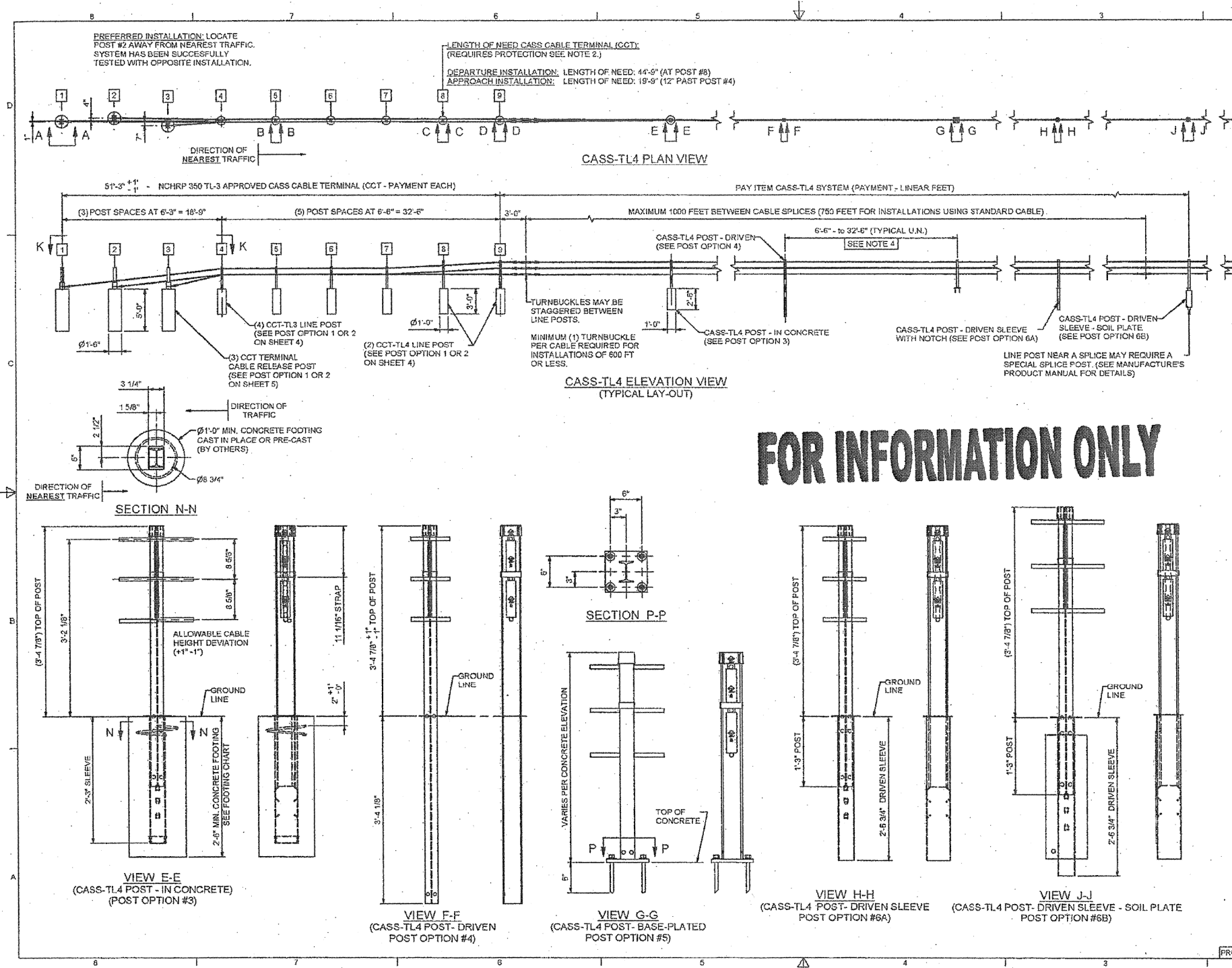
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PLOT SCALE = 100.0000' / in.		DATE -	REVISED -
PLOT DATE = 6/15/2016			

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE BARRIER REPAIR  
AT VARIOUS EXPRESSWAY MEDIANS  
HIGH TENSION GUARDRAIL DETAILS (GIBALTAR)**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2016-044GRR	VARIOUS	11	7
CONTRACT NO. 62D23				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**FOR INFORMATION ONLY**

- NOTES:**
- CASS-TL4 HAS BEEN SUCCESSFULLY TESTED TO NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 TEST LEVEL 4 (NCHRP 350 TL4) AND ACCEPTED BY FHWA FOR VARIOUS POST SPACINGS. CASS CABLE TERMINAL (CCT) HAS BEEN SUCCESSFULLY TESTED AND APPROVED TO NCHRP TL3.
  - AN NCHRP 350 TL3 APPROVED TERMINAL (CCT) OR CASS-TL4 TRANSITION (VARIOUS) SHALL BE USED ON APPROACH AND DEPARTURE TERMINATIONS WHEN CASS-TL4 IS INSTALLED ON THE NATIONAL HIGHWAY SYSTEM (NHS). IF THE TERMINATION POINT IS LOCATED OUTSIDE THE CLEAR ZONE AND/OR PROTECTED BY OTHER MEANS (CRASHWORTHY BARRIER, TERMINALS, ETC.), A NON-NCHRP 350 TL3 ANCHOR (CCA) MAY BE USED ON APPROACH AND DEPARTURE TERMINATIONS.
  - CASS-TL4 SHALL BE INSTALLED ON SHOULDERS OR MEDIANS WITH SLOPES OF 6:1 OR FLATTER WITHOUT OBSTRUCTIONS, DEPRESSIONS, ETC. THAT MAY SIGNIFICANTLY AFFECT THE STABILITY OF AN ERRANT VEHICLE. GRADING OF SITE AND/OR APPROPRIATE FILL MATERIALS MAY BE REQUIRED. THE DESIGNER/INSTALLER SHALL "FLATTEN" OR "ROUND" VARIOUS TOPOGRAPHICAL INCONSISTENCIES THAT COULD INTERFERE WITH THE ABILITY OF THE INSTALLER TO CONSISTENTLY MAINTAIN THE DESIGN HEIGHT (IN RELATION TO THE TERRAIN) OF THE CABLES. PLEASE CONSULT THE CASS MANUAL(S) FOR INSTALLATIONS IN "DITCH SECTIONS".
  - CASS-TL4 POST SPACING MAY BE MODIFIED TO AVOID OBSTACLES THAT CONFLICT WITH THE INSTALLATION OF CASS-TL4 LINE POSTS. NO POST SPACE CAN EXCEED THE MAXIMUM POST SPACE LIMIT OF 32'-6" OR MAXIMUM POST SPACING ALLOWED BY PROJECT ENGINEER - WHICHEVER IS LESS. REDUCING OR INCREASING POST SPACING AFFECTS DEFLECTION. CASS-TL4 MAY BE LATERALLY TRANSFERRED AT A RATE NOT TO EXCEED 30:1.
  - POST FOUNDATIONS MAY BE DRILLED THROUGH EXISTING PAVEMENT. TRINITY MAY ALLOW THE USE OF ALTERNATE LINE POST FOOTINGS IF SYSTEM IS INSTALLED WITH AN ACCEPTABLE MOWSTRIP APPLICATION - PLEASE CONTACT TRINITY.
  - FOR AESTHETIC PURPOSES TRINITY RECOMMENDS ALL SLEEVES, DRIVEN POSTS, AND LOWER CABLE RELEASE POSTS TO BE INSTALLED REASONABLY PLUMB (APPROXIMATELY 1/8" PER FOOT).
  - ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I. PRIOR TO TENSIONING THE SYSTEM. TRINITY RECOMMENDS THE CONCRETE TO BE VIBRATED IN ACCORDANCE WITH THE LATEST APPLICABLE AGENCY SPECIFICATION.
  - CASS-TL4 SHALL BE INSTALLED IN WELL-DRAINED, COMPACTED, NCHRP REPORT 350 STANDARD SOILS. IF SOIL DOESN'T MEET THIS CLASSIFICATION, IF SOLID ROCK/CONCRETE IS ENCOUNTERED BELOW GRADE OR IF SOIL IS SUSCEPTIBLE TO SEVERE FREEZE/THAW CYCLES, PLEASE CONTACT TRINITY ABOUT ALTERNATE FOOTING DESIGNS. TRINITY SUGGESTS THE USE OF "MOW STRIPS" FOR EROSION PREVENTION AND EASE OF MAINTENANCE / INSTALLATION.
  - PLEASE SEE SPECIFYING AGENCY (OR MUTCD) FOR PROPER "BARRIER" DELINEATION.
  - PLEASE CONTACT TRINITY OR CONSULT THE DESIGN, INSTALLATION, OR REPAIR MANUAL(S) FOR ADDITIONAL INFORMATION.

**MOW STRIP DETAIL\***

MOW STRIP	DEPTH	WIDTH	FOOTING	TUBE SLEEVE	REBAR RING
NONE			30" MIN	27" MIN	YES
HMA	6" MIN	3" MIN	24" MIN	15" MIN	NO
HMA	8" MIN	3" MIN	24" MIN	15" MIN	NO
RC	3" MIN	3" MIN	24" MIN	15" MIN	NO

CHART DOES NOT APPLY TO TERMINAL POSTS 1 THRU 8  
 \* MOW STRIP OR PAVEMENT  
 HMA = HOT MIX ASPHALT (NOT RECYCLED ASPHALT PAVEMENT)  
 RC = REINFORCED CONCRETE (3,000 P.S.I. MINIMUM)

No.	CASS-TL4 POST OPTIONS
1	CCT - TERMINAL POST 1 - 9' - IN CONCRETE
2	CCT - TERMINAL POST 1 - 9' - WITH SOIL PLATE
3	CASS-TL4 POST - IN CONCRETE
4	CASS-TL4 POST - DRIVEN
5	CASS-TL4 POST - BASE PLATED
6	CASS-TL4 POST - IN DRIVEN SLEEVE
	6A - DRIVEN SLEEVE - WITH NOTCH
	6B - DRIVEN SLEEVE - WITH SOIL PLATE

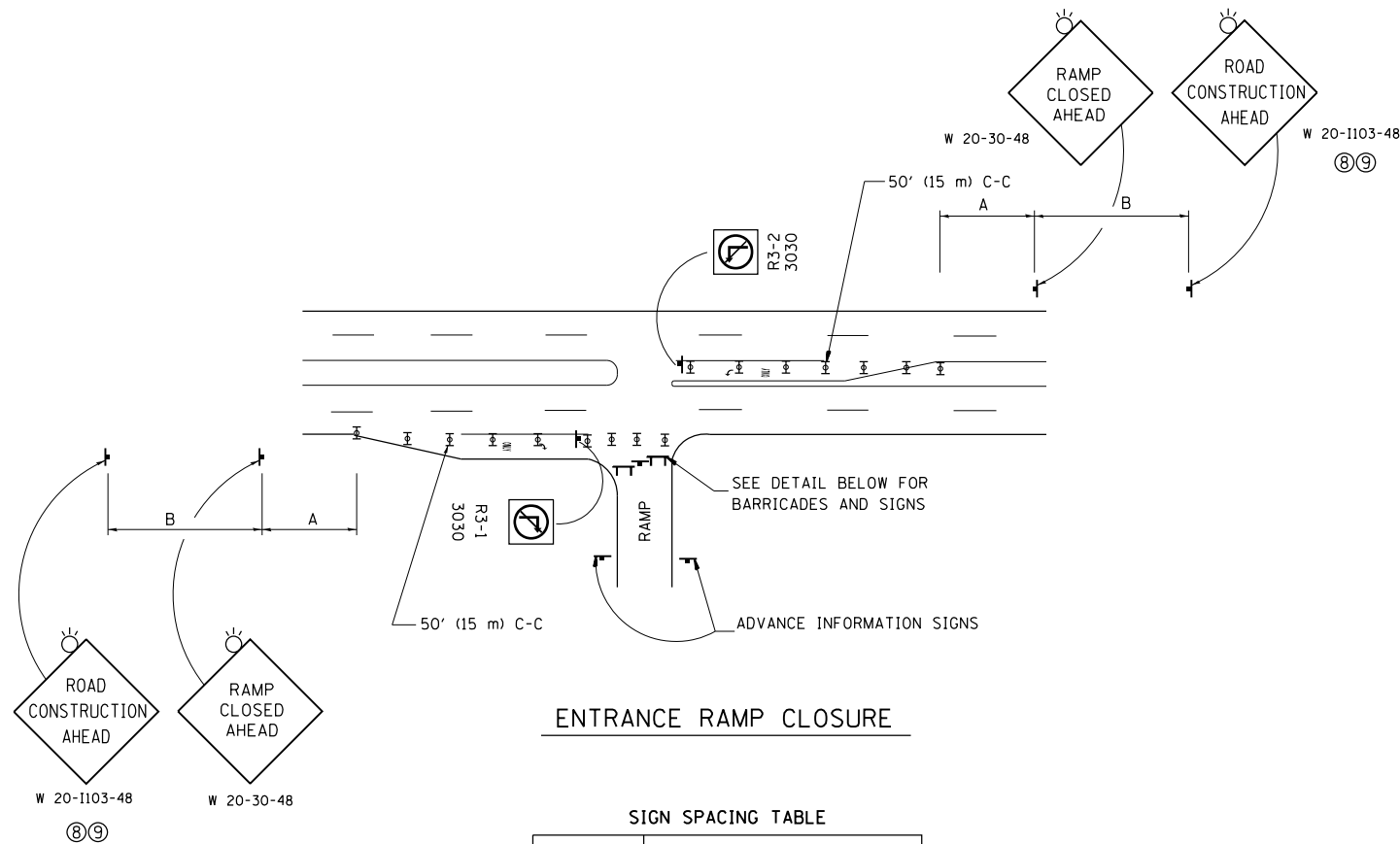
**CASS-TL4  
3-CABLE GUARDRAIL  
SAFETY SYSTEM**

TRINITY HIGHWAY PRODUCTS, LLC

PROJ: CASS-TL4

GALV SPEC:  
SHIPPING WT:  
DRW: E.A.S. 4/11/2008  
CHK: G.N. 4/11/2008  
SHT: 1 OF 5 SIZE: D  
QWSR: REV  
SS-740 3



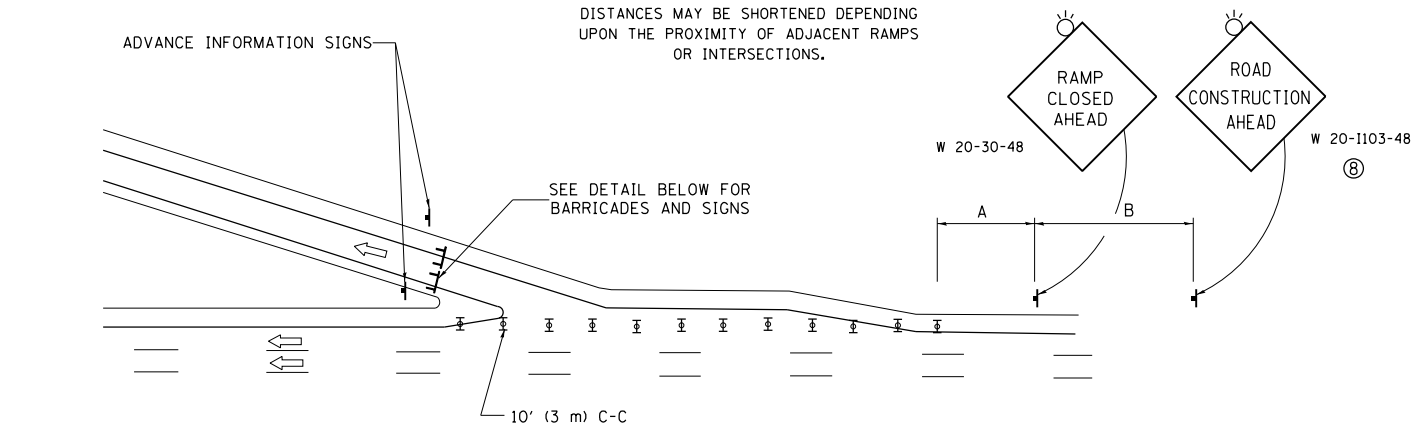


**ENTRANCE RAMP CLOSURE**

**SIGN SPACING TABLE**

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY <24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

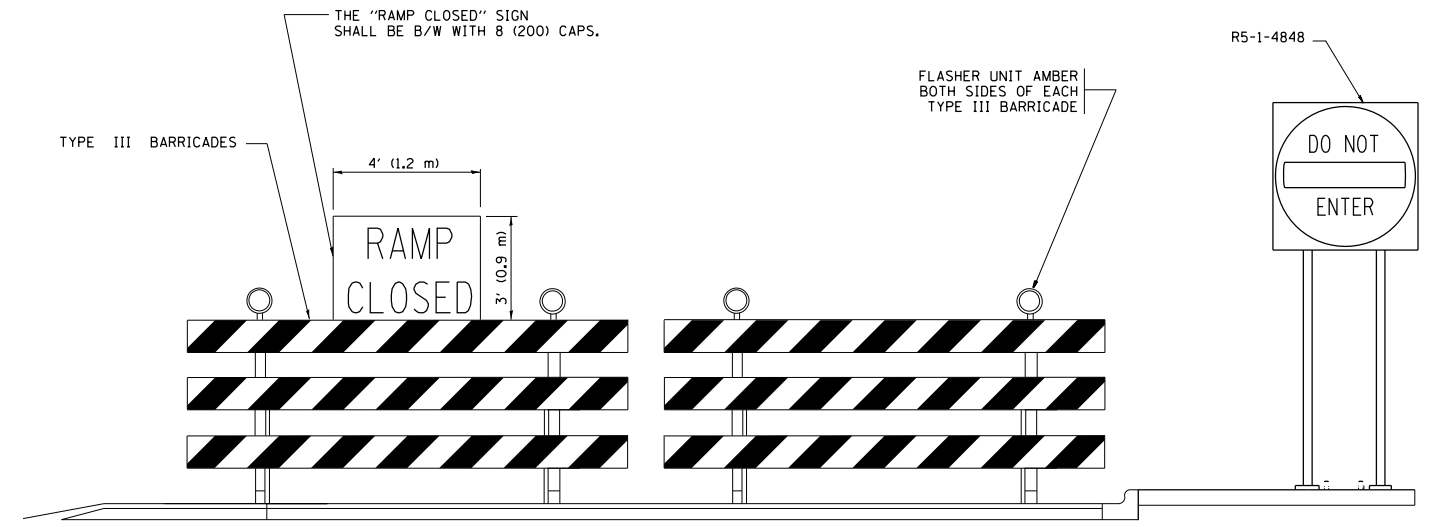
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



**EXIT RAMP CLOSURE**

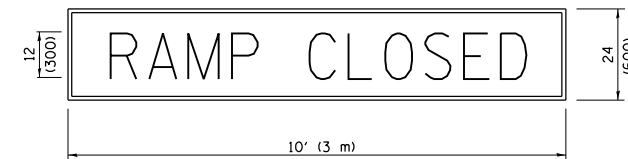
**SYMBOLS**

- ⊥ TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- ⊓ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



**DETAIL FOR REQUIRED BARRICADES & SIGNS**

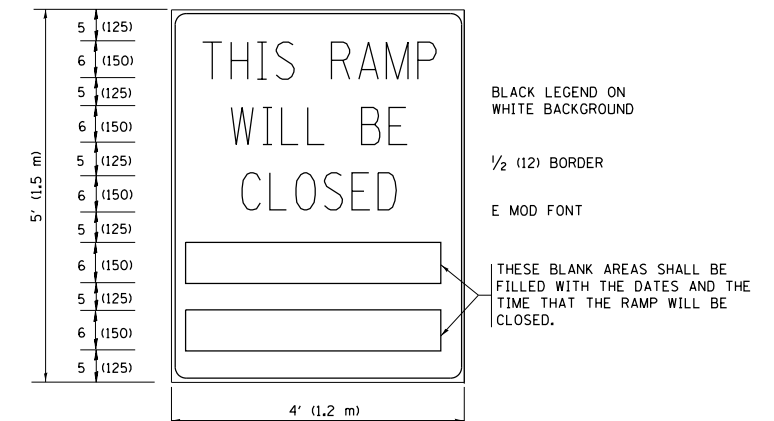
**RAMP CLOSURE ADVANCE WARNING SIGN**



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY  
E MOD FONT  
1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

**RAMP CLOSURE ADVANCE INFORMATION SIGN**



BLACK LEGEND ON WHITE BACKGROUND  
1/2 (12) BORDER  
E MOD FONT

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

**GENERAL NOTES:**

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH.
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = pyrzenowski	DESIGNED - DWS	REVISED - JAF 02-06
p:\IL\084EBID\INTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI382\Design\DI38215-sht-plen.dgn		CHECKED -	REVISED - SPB 01-07
		DATE - 02-83	REVISED - SPB 12-09
			REVISED - MD 06-13

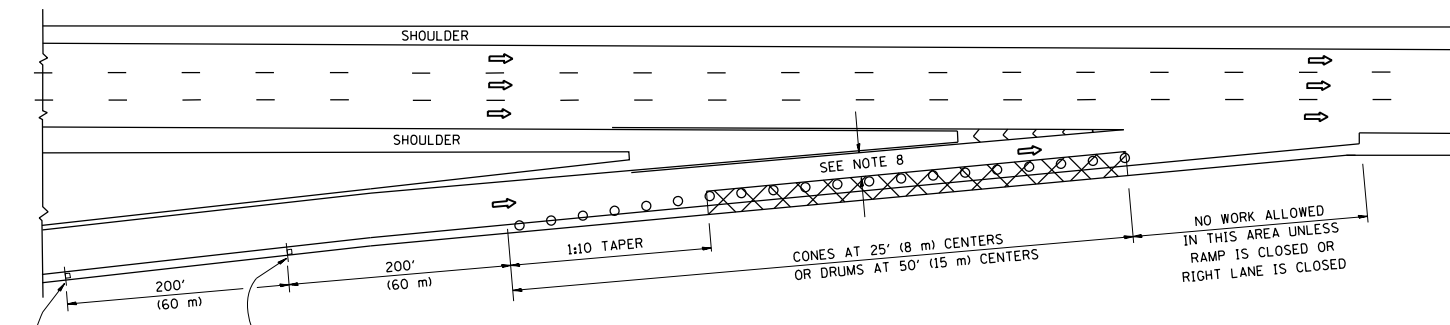
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENTRANCE AND EXIT RAMP  
CLOSURE DETAILS**

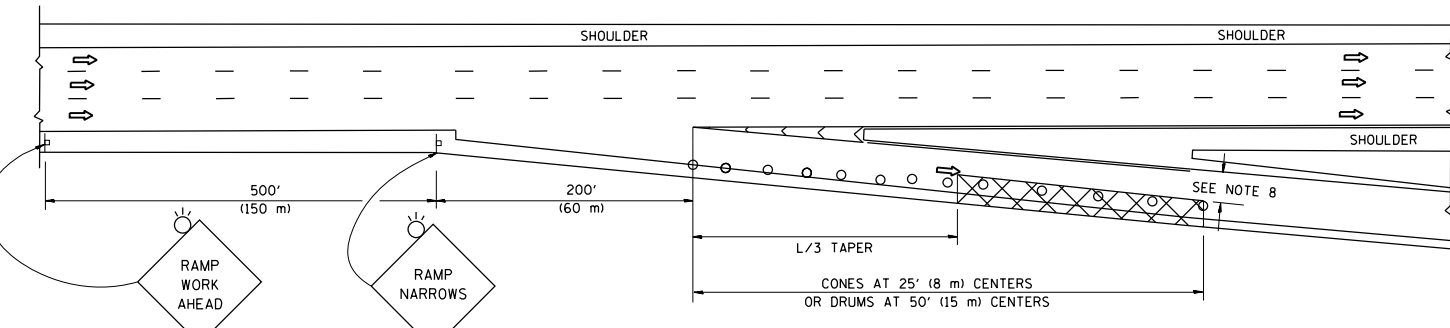
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2016-044GRR	VARIOUS	11	9
TC-08		CONTRACT NO. 62D23		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

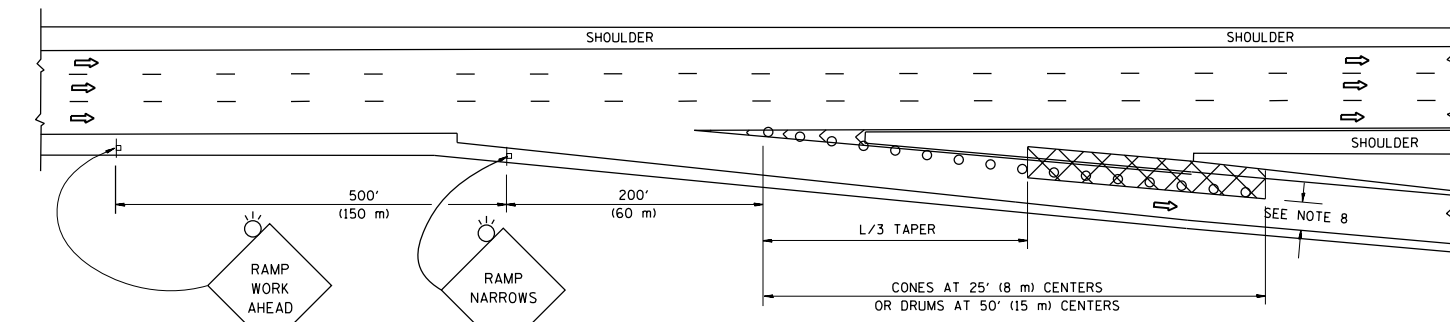
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

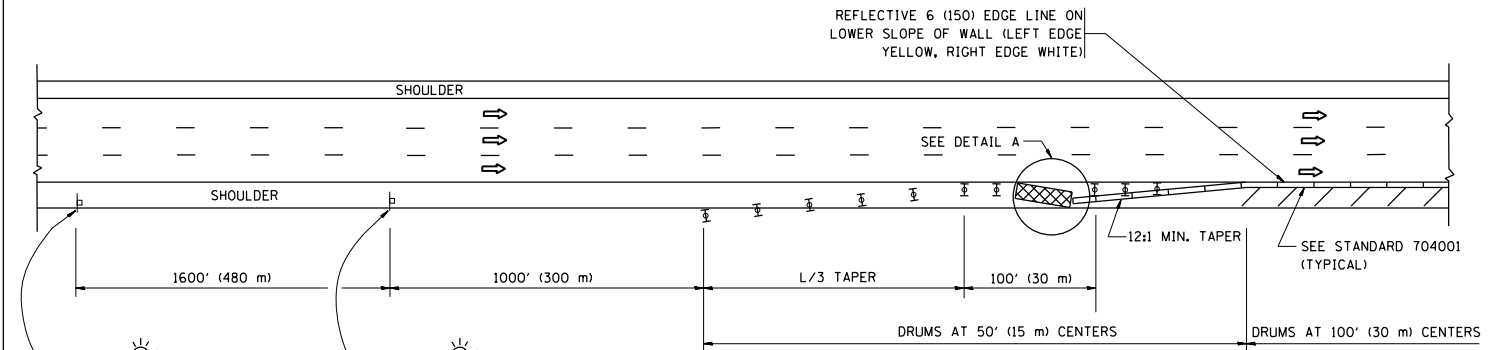
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES

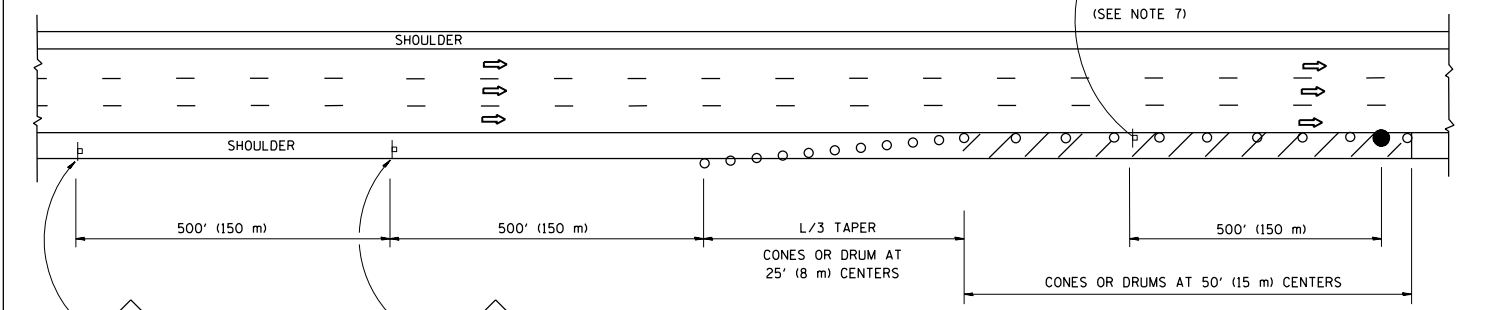
1. THE "L" DISTANCE EQUALS:  

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH L=0.65(W)(S) L=(W)(S)
W = WIDTH OF OFFSET IN FEET (METERS)	
S = NORMAL POSTED SPEED MPH (KM/H)	
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS

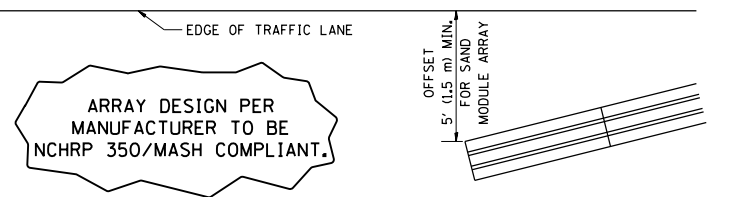


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:  
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRANCH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A"  
 IMPACT ATTENUATOR, TEMPORARY  
 (SEE NOTE 5)

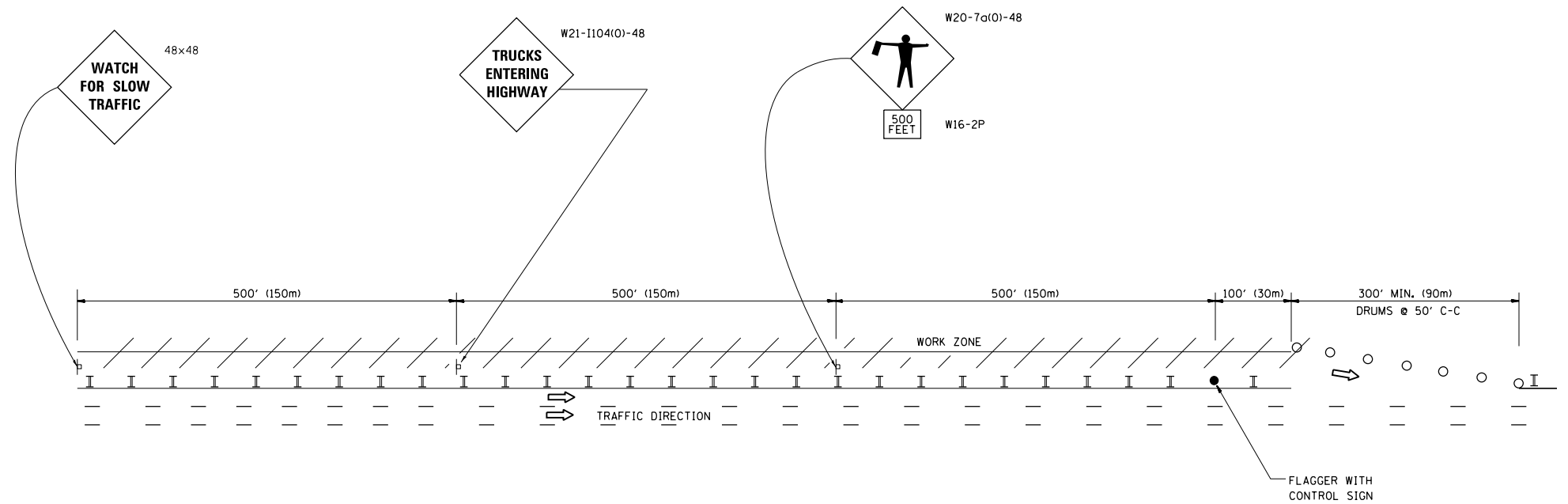
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
  - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
  - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCRACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12' MIN. WIDTH TANGENT SECTION  
 16' MIN. WIDTH CURVE SECTION.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

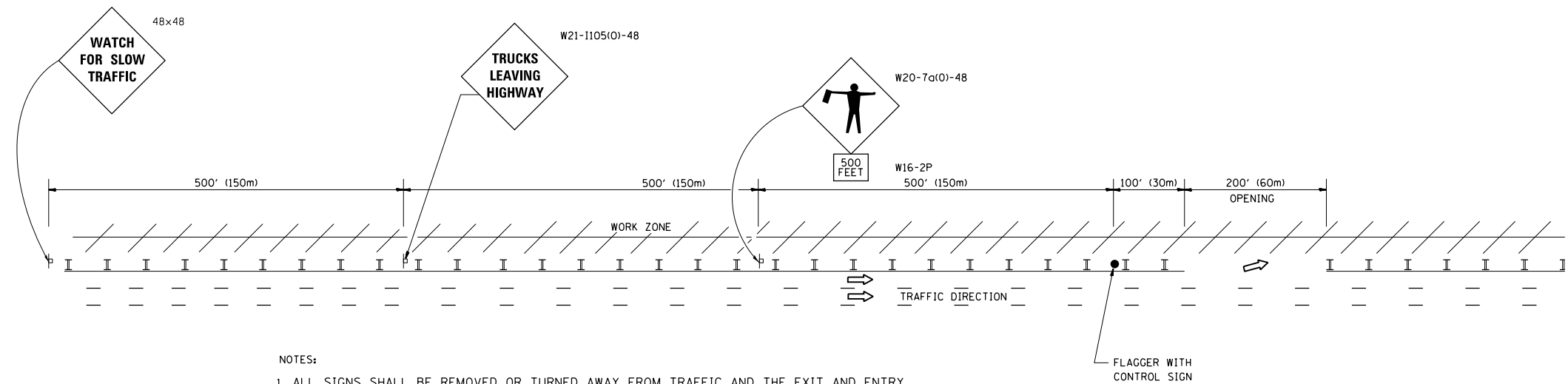
FILE NAME =	USER NAME = pyrzenowski	DESIGNED -	REVISED - J.A.F. 12-06	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\11084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI382\Drawings\Design\015-shr-pln.dgn	PLLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - S.P.B. 01-07					VAR.	2016-044GRR	VARIOUS	11	10
PLLOT DATE = 6/15/2016	DATE - 11-96	REVISED - S.P.B. 12-09	REVISED - M.D. 06-13		<b>TC-17</b>			<b>CONTRACT NO. 62D23</b>				
					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. ALL SIGNS SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMP.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS
5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = pyznowskirb	DESIGNED -	REVISED - J.A.F. 02-06	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>FREEWAY/EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS ON FREEWAYS/EXPRESSWAYS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG.illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\DI38215\Design\DI38215-sht-plan.dgn	DRAWN	REVISED - S.P.B. 01-07	REVISED - S.P.B. 12-09			VAR.	2016-044GRR	VARIOUS	11	11
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - M.D. 06-13				TC-18		CONTRACT NO.	62D23	
PLOT DATE = 6/15/2016	DATE -					FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.